

Notice of Allowability

Application No.

10/726,476

Examiner

Alan Diamond

Applicant(s)

NELLES ET AL.

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the terminal disclaimer filed May 26, 2006.
2. ☒ The allowed claim(s) is/are 3,4,7,10-13,15-17,31 and 63.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/866,199.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Alan Diamond
Primary Examiner
Art Unit: 1753

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The prior art does not teach or suggest the recited photoelectric conversion device, wherein the polymeric electrically conducting agent has a melting point lower than the operation temperature of the photoelectric conversion device, has a glass transition temperature T_g , and is a hole transporting agent. The advantage of the polymeric electrically conducting agent having a melting point lower than the operation temperature (and is, for example, liquid or viscous) is that desired intimate contact can be made between the agent and the semiconductor or dye (see the third paragraph on page 2, and the paragraph bridging pages 8 and 9, of the instant specification).

Bach et al, "Solid-state dye-sensitized mesoporous TiO_2 solar cells with high photon-electron conversion efficiencies," Nature, Vol. 395, (October 8, 1998), pages 583-585, is already of record in the instant application. Bach et al uses a hole conductor having a T_g of 120°C . Bach et al's device is a solid state device (see title) and thus, its hole conductor (OMeTAD), like the conventional hole conductor TPD (see page 583) is a solid and would not be expected to have a melting point lower than the operation temperature of the device. Furthermore, said OMeTAD and TPD would not be recognized by one skilled in the art as being polymeric.

The following reference is hereby made of record: Jager et al, "Novel hole transporting poly(triphenyldiamine)s for application in hybrid solar cells," Proceedings of SPIE, Vol. 4108, (2001), pages 104-111. Jager et al cannot be used as prior art since the instant application is fully supported by instant EP foreign priority document

00111493.3 having a filing date of 5/29/2000. The EP foreign priority document is in English (i.e., no certified English translation required) as is of record in instant parent application 09/866,199.

The terminal disclaimer filed May 26, 2006 has overcome the obviousness-type double patenting rejection over U.S. Patent 6,700,058.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Diamond whose telephone number is 571-272-1338. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alan Diamond
Primary Examiner
Art Unit 1753

Alan Diamond
June 6, 2006

A handwritten signature in black ink, appearing to read 'al D.', with a horizontal line extending from the end of the signature.